Ordering number: EN 1507C

Monolithic Digital IC

No.1507C

SANYO

LB1408

Level Meter

Features

(1) An input amplifier is built in.
(2) Minimum number of external parts required.
(3) Low current dissipation because of series connection of LED's.

Absolute Maximum Ratings at Ta=25°C

				unit
Maximum Supply Voltage	$V_{CC}max$	(Pin 3)	-0.3 to +18.0	V
Maximum Input Voltage	$V_{IN}max$	(Pin 2)	-0.3 to V_{CC}	V
D Pin Output Current	$I_{D}max$	Output transistor ON	0 to 30	mA
D Pin Output Voltage	$V_{D}max$		-0.3 to V_{CC}	V
Reference Flow-Out Current	Irefmax	(Pin 4)	-3.0 to 0	mA
Allowable Power Dissipation	Pdmax		1.2	W
Operating Temperature	Topr		-30 to +80	°C
Storage Temperature	Tstg		-40 to +125	°C

Allowable Operating Conditions at Ta=25°C

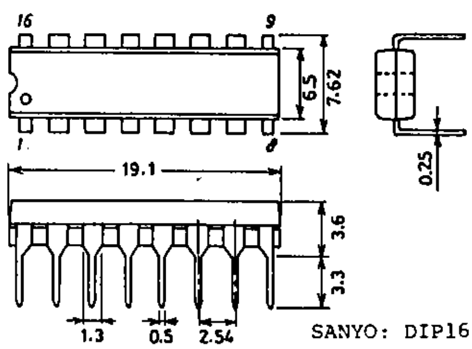
			unit
Supply Voltage	V_{CC}	6.7 to 16.0	V

Electrical Characteristics at Ta=25°C, V_{CC}=12V

			min	typ	max	unit
Current Dissipation	I_{CC}	Quiescent, pin 3 3.3kohms across I_{LED1} and Vref		4	8	mA
Input Bias Current	I_{IN}	Pin 2	-10		0	µA
Reference Voltage	Vref	Pin 4	4.40	4.85	5.30	V
D Pin Current 1	$I_{D2,4,7}$	3.3kohms across I_{LED1} and Vref I_{LED2}=GND, pins 7,11,14	12	16	19	mA
Output Saturation Voltage	VsatD 1,3,5,6	" , pins 6,10,12,13		1.0	1.3	V
D Pin Current 2	$I_{D2,4,7}$	" , V_{CC}=6.7V, $V_{D1,3,6}$=0.9V, pins 7,11,14	12		19	mA
OUT Pin Impedance	R_{OUT}	Pin 1	8	12	16	kohm

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Package Dimensions 3064
(unit : mm)

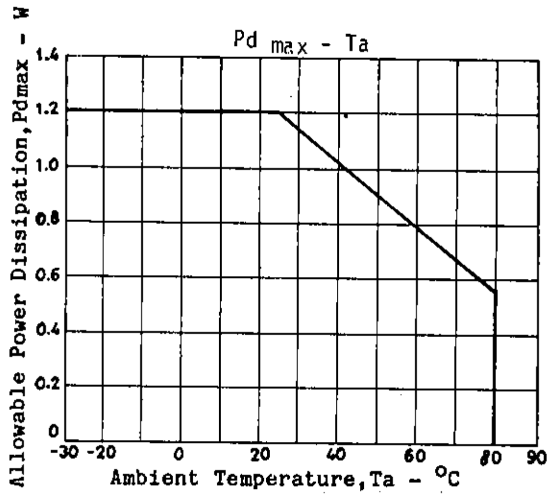


SANYO: DIP16

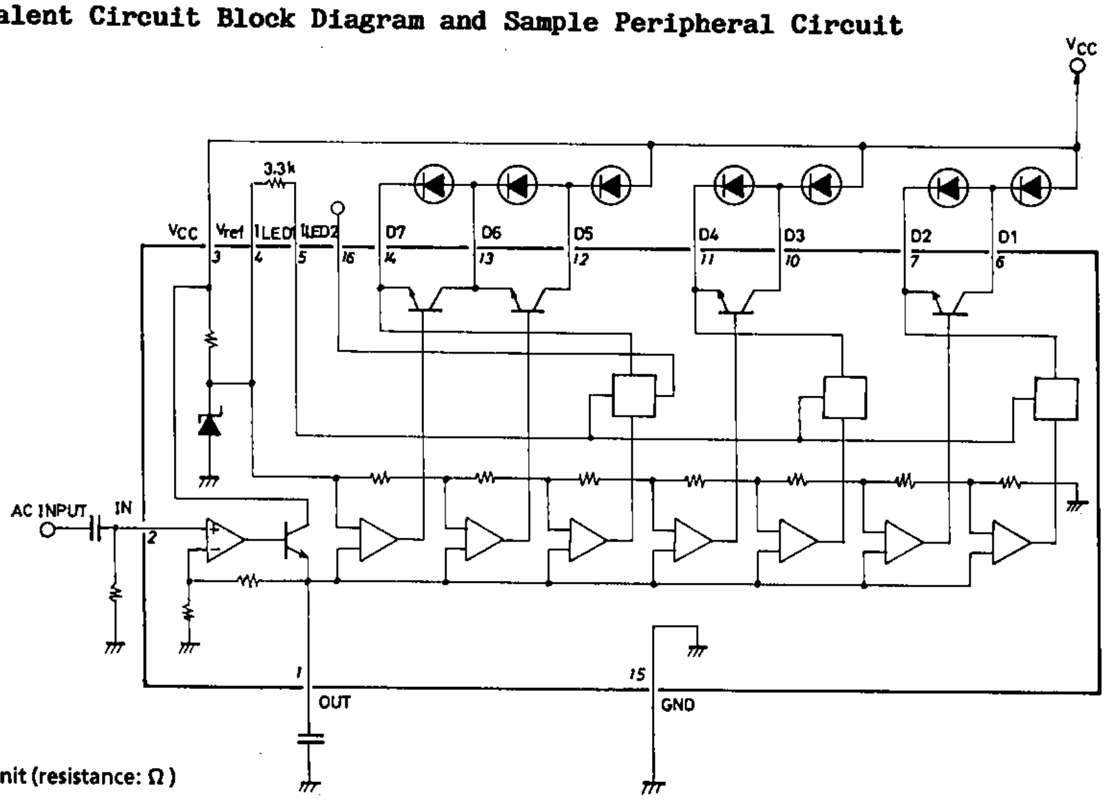
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Parameter	Symbol	Conditions	min	typ	max	unit
Input Sensitivity	V_{IN5}	Input voltage at which LED of D5 is lighted	119	132	145	mV
Comparator Level D1	V_{T1}	Input voltage at which LED of D5 is lighted is taken as 0db.	-26	-20	-14	dB
D2	V_{T2}	"	-12	-10	-8	dB
D3	V_{T3}	"	-7	-6	-5	dB
D4	V_{T4}	"	-3.5	-3.0	-2.5	dB
D5	V_{T5}	"	0	0	0	dB
D6	V_{T6}	"	2.5	3.0	3.5	dB
D7	V_{T7}	"	5	6	7	dB
Output Leakage Current	I_{DL} 1,3,5	V_{IN}=0V,pins 6,10,12	0		10	µA
D Pin Current 3	I_{D7}	3.3kohms across I_{LED1} and Vref I_{LED2}=Open,pin 14	4.5	6.0	8.0	mA
D Pin Current 4	I_{D7}	" V_{CC}=6.7V, V_{D6}=0.7V,Pin 14	4.5		8.0	mA



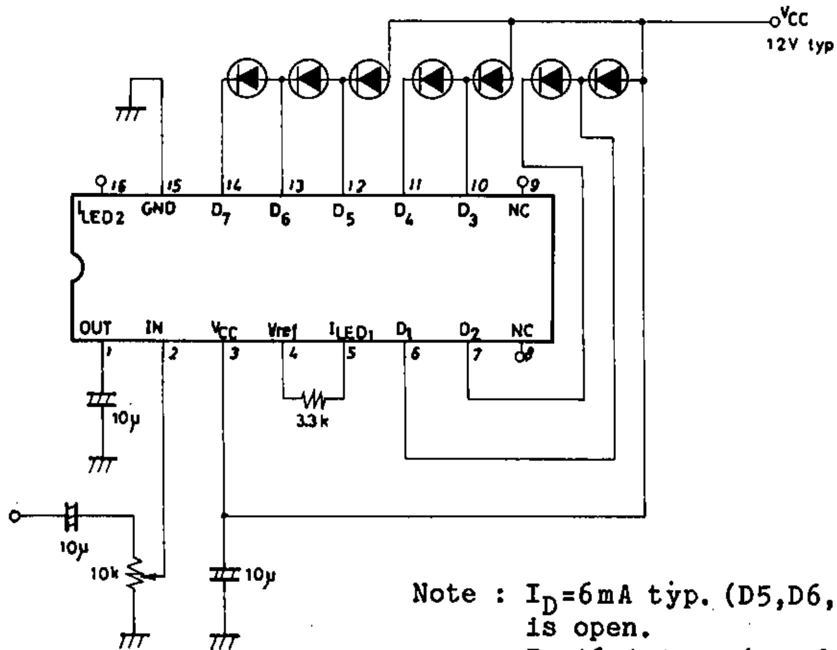
Equivalent Circuit Block Diagram and Sample Peripheral Circuit



Unit (resistance: Ω)

Sample Application Circuit

Unit (resistance: Ω, capacitance: F)



Note : I_D=6mA typ. (D5,D6,D7) when I_{LED2}(pin 16) is open.
I_D=16mA typ. (D5,D6,D7) when I_{LED2}(pin 16) is grounded.